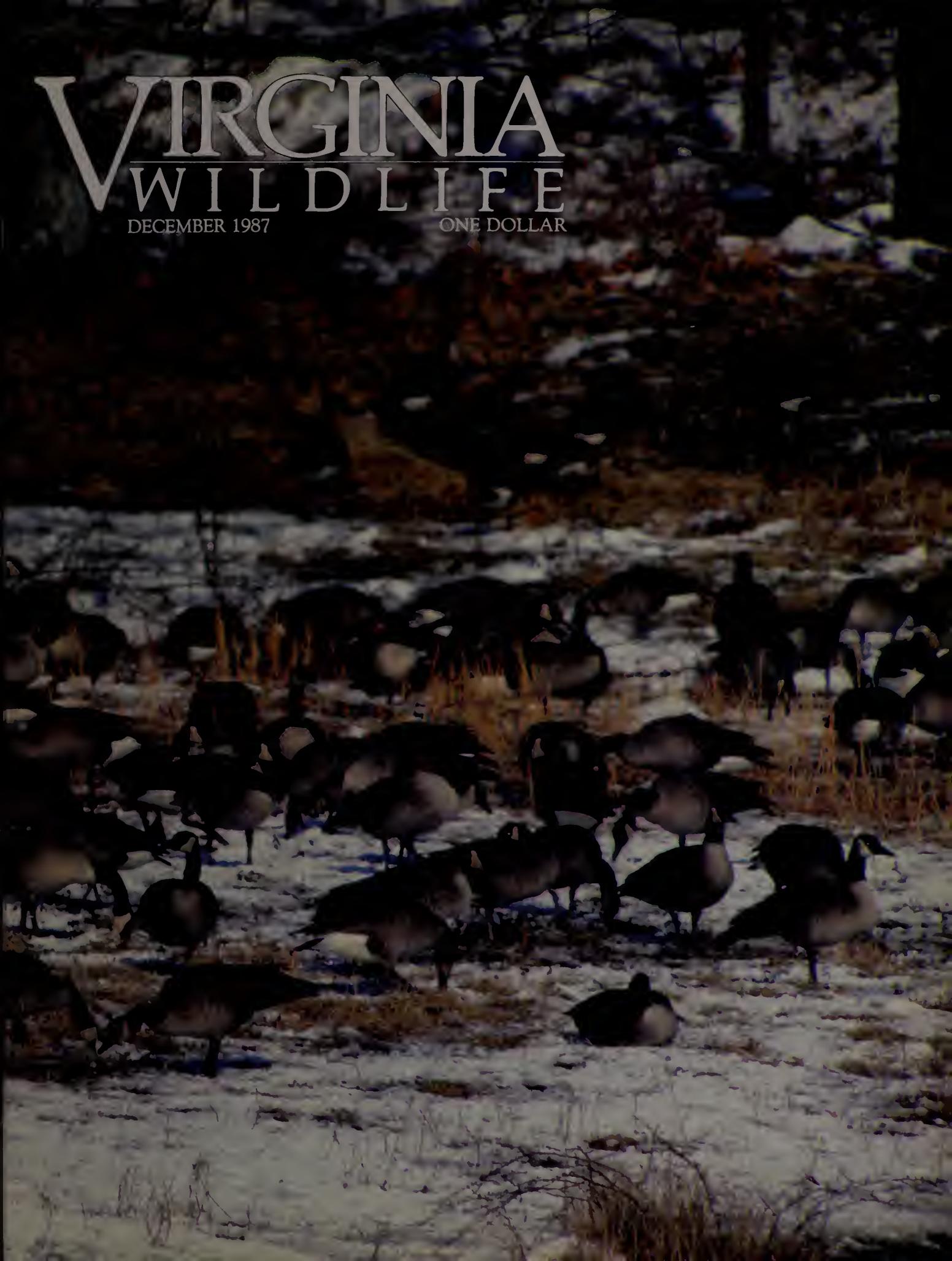


VIRGINIA

WILDLIFE

DECEMBER 1987

ONE DOLLAR



VIRGINIA WILDLIFE

Last Saturday, the alarm went off at 4:30 a.m. Not more than two minutes later, my roommate's alarm went off, too. Lights came on in the darkness. Jan was going foxhunting; I was headed for turkey woods. I stumbled into the kitchen after pulling on my genuine, high quality Army camouflage pants and shirt, along with a worn, briar-bitten gray cashmere sweater. It was cold outside. I was pulling on some muddied hunting boots when I looked up. Jan was gathering together her newly-cleaned bridle and saddle, securing the shiny stirrups and the white saddle pad to carry out to the car. She was dressed in the classic jodhpurs, with black polished boots and a clean white shirt with a delicate gold pin holding the collar together. She wasn't quite awake; her hair was as messed-up as my own.

Still, it was a dismal contrast in appearance. I caught a look at myself in the mirror, and I realized why people talk about slob hunters. Heck, we *look* like slobs. It doesn't matter if the foxhunting set might commit game law violations, too, from not purchasing hunting licenses to refusing to wear blaze orange; they *look* reputable, genteel and sporting. We, on the other hand, can't walk into a grocery store after a hunt without scaring people.

Even so, some of us might say it's just not right to judge someone on their appearance in the field. Well, maybe it isn't. But, I can say that Janice stayed up half the night cleaning her tack and her horse, and making sure all her equipment was immaculate, because she took pride in her sport. And the people she was going to hunt with expected it. It showed respect. And, besides, I don't think it's wrong to suspect that scrupulous attention to detail like that would spill over into a similar concern for shutting fences, not riding over freshly plowed fields, and respecting boundary lines.

Now, I'm not saying that we turkey hunters don't have as much concern for our sport. But, I certainly don't prepare so fastidiously for turkey hunting as Janice does for the fox hunt. I don't make sure my camouflage matches, that my hair is combed, or that my boots are clean. It's not that I make a special effort to look slovenly; it's just that I never put a whole lot of interest in looking good for the turkey or deer I am stalking in the woods.

Perhaps, though, it might do me some good to be forced to bring some of that kind of dignity back to the sport. Perhaps I should take a bit more care about my appearance, in respect for the noble bird I am about to pursue. The Europeans, as most of us know, take much more care about their appearance, for hunting is as much a ritual as a sport. One does not prepare hurriedly for the privilege of participating in the sport of kings.

Now, I realize that there is a fine line between losing the meaning of the sport in the ritual. There are people who take advantage of looking good to get away with acting bad. I, personally, don't care for the people I've met in my lifetime who are more concerned with how they look than how they act. I've met some very unpleasant personalities masked by exquisite sporting costumes. The ski set, I think, is particularly vulnerable to such nincompoops. I think that the important thing to remember is that the dressing up should arise out of the love for the sport, not the other way around.

It's respect, that's what it is. It's something like the kind of respect you feel about showing up to church in proper attire. Most of us try to look our best, out of respect for Whom we are visiting. And, we wouldn't dare go over to our grandmother's for Christmas dinner in paint-splattered overalls and a John Deere cap. It boils down to respect for the occasion and the importance of the event. Oh, I've been to church in jeans, and I've been to my grandmother's in a bathing suit and t-shirt. But, when Granny's put a whole lot of effort into a dinner with crystal and silver on the table, I figure it's the least I can do to honor her with my best.

Of course, I know I'm being a bit hard on us turkey hunters. After all, I've yet to see the camouflage clothing that looks dignified on any man or woman. But I might have time to clean my boots next time I go out. And I might also comb my hair.

Virginia Shipler

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Canada geese (*Branta canadensis*); photo by Jack R. Colbert.



Strategies For Grouse

(or, how to come home with at least one bird this season.)



Left: photo by Gregory K. Scott; Above: photo by Bruce Ingram

I had missed this one not quite as badly as some I had missed on past excursions. The grouse had flushed five feet to my right from some mountain laurel, flashed briefly across my line of vision, and then disappeared into some rhododendron along the creek which was to my left.

Somewhere in between the flushing, the flashing, and the disappearing, I had managed—in turn—to be startled, to raise my 20 gauge, to click off the safety, to aim, and—finally—to fire into thin air.

My hunting companion, who had been working the opposite side of the stream with his dog and had only heard the shot, assumed what many sportsmen assume when out hunting for grouse. "How bad did you miss him this time?" were his words as I recall.

Actually, I felt pretty good about my performance. I had, after all, gotten off a shot. Fortunately, however, for the honor of the state's outdoorsmen, there are Virginians who actually hit what they aim at.

There are individuals who treat grouse hunting as a science, who know best how to utilize a dog for fool hens, and who can rustle up ruffs in the

relatively mild days of early November as well as the snowy mornings of late January. Terry Smith, who lives in Roanoke and is employed by Lorillard Tobacco Company, has some strong opinions about grouse hunting—particularly about what constitutes a fine bird dog.

"Papers don't mean doodly squat when you're talking about what makes a good dog for grouse," he says. "A lot of the old-timers that you'll talk to will say that a dog's spirit is what counts. I think too many people today will shell out big bucks for a dog that 'has it' on paper. After a few years of trying to transform the dog into something that he can't be, you have a frustrated human and a confused dog. A house poodle will make a good grouse dog if he has the willpower."

"If the dog has the desire, the next thing that you look for early on is how far he ranges. Obviously, you want a short working dog, but you also want one that is a 'winder.' Winders hold their noses in the air and try to catch the scent. Usually, they'll scent the bird when they are 25 to 30 yards away and thus won't spook it."

Canines that keep their noses to the

by Bruce Ingram



turf often end up 'bumping' Old Ruff. They blunder in too close to where the bird is lurking—sometimes to within 10 or even five yards. The result is a grouse which flushes without warning, that is, without the dog becoming birdy and indicating to the hunter that game is near.

Conversely, a well-trained winder will become birdy at some distance from the grouse and at least allow the sportsman a chance to maneuver into good shooting position. However, no one who hunts for these crazy creatures consistently gets into an ideal shooting stance. Smith, though, has some tips which could help a little.

"When your dog becomes birdy, move in with your front foot out in some sort of open stance. This stance,

I believe, helps you to go either left or right equally well when the bird comes up. I also try to have my front foot planted on some sort of steady surface, never on a log or rock for example. Don't watch the dog; that's a mistake many people make. Look at the cover out in front of him. Of course, you can do all these things and still the grouse gets the better of you. The last time I went out, my dog became birdy, I was firmly in position, and the grouse ran around behind us and flushed behind my back.

"I strongly believe that another reason why you should be in a good shooting position involves safety. I once was accidentally shot by a friend while we were grouse hunting. It wasn't anything serious, but it also wasn't

something that was particularly pleasurable. Never take your safety off until the bird is flying and you are sure of your target. I really recommend that everyone out on the hunt should have at least some blaze orange on—and that goes for the dogs too."

Another part of being a safe and at the same time an effective ruffed grouse hunter concerns the distance between you and your companion. Many veteran sportsmen like to stay parallel and within 20 to 30 yards of each other. Mountain pheasant cover is typically so thick that it is very easy to lose sight of one another at greater distances. When that bird motors up out of a brier patch, it's not time to be worrying about where your partner is and whether he is in front of or behind



As a rule, it's a rare thing to see a grouse sitting tight during the hunting season—it's much more common to be spooked by a bundle of feathers flushing up ahead and losing a target before you get your gun up; photo by Gregory K. Scott.

you. And if the two of you are in close proximity, the fool hens are less likely to double back between you.

If positioning is important for the Virginian who hunts with a dog, it is even more crucial for those who don't employ canines. Ronnie Perdue, a fireman from Wabun, often journeys afield with his teenage son Mike. The father-son team believes the speed at which they make their way through the forest is a key to their success.

"We walk very slowly and stop a lot in hopes of getting a bird up," says the elder Perdue. "Sometimes the act of stopping suddenly is what will cause a bird to fly. If you're really trucking through the woods and a bird flushes, you have to stop and then bring your gun up. Walking slower actually makes us faster shooters because we can come to a halt quicker and get our guns up faster. We're simply in a better position to fire."

"Another thing that we always try to do is to be in really good habitat. Ideally, we look for shelves along ridgelines. And by shelf we mean a place that is relatively flat before the land sharply drops again. If the shelf has a lot of grapevines and there are oaks nearby you should find grouse. Our second favorite place is old logging roads in clearcuts that have had a chance to grow back a while, and get really thick. Since we don't have a dog, we have to walk a lot, but if Mike and I find good cover, we usually do pretty well."

John Stone, a grouse hunter from Covington, agrees with Perdue that grapes, oaks and clearcuts will attract fool hens, but feels that these upland birds have other favorite menu items as well.

"In my area of the state—the Alleghany highlands—you look for 'rougher the better' type habitat," he says. "Tangles of catbrier or greenbrier, dense pockets of grapevines, and thick stands of pines will hold grouse. Brushy areas are also good and rhododendron and mountain laurel down along stream beds or back in the hollows are super grousy areas."

"You've just got to have a good dog in cover like that. I prefer an English setter. Setters have stamina, they don't

stay under your feet, yet they don't range out too far. A setter sometimes will even hold a grouse, a well-trained one is 'cautiously aggressive' when it approaches a bird. Brittanies are also quite good. They are close working, stay within sight, train easily, and best of all, they really want to please. Brittanies, I believe, don't stand a grouse as well as a setter, but Brittanies are very fine dogs."

One of my biggest problems when upland bird hunting (and I have a number of major ones) is shooting either in front or behind my target. Stone believes that this is a common affliction, but one that can be corrected.

"You can't be taught how to follow through on a grouse—it's something which has to be learned," relates the Covington resident. "Skeet shooting or dove hunting will help and so will using the same shotgun for all your bird hunting. If you can find a gun which comes up easily and if it feels like a natural extension of your shoulder, use it all the time."

"Don't throw the gun up and just pop away. If you try to shoot at a spot where you think the grouse is heading, you will miss for sure. A grouse will always try to keep a tree or some kind of cover between you and him. Once the gun is up, swing easily with your target—that's about the best advice I can give. And don't get discouraged if you have a lot of misses—even the best wingshots do when they're after grouse."

If these birds are so hard to hit, why are they so popular?

Says Stone: "The thrill in grouse hunting is in the unexpected. Nothing ever happens the way you think it will. Grouse hunting is sort of like muskie fishing—you don't bring home one that often, but when you do, it's really special."

This fall, experience ruffed grouse hunting—Virginia style. If you venture forth, you'll experience plenty of cuts, bruises, and frustration and few birds.

But, it will be worth it. □

Bruce Ingram is the Virginia editor for *Outdoor Life* magazine and a frequent contributor to *Virginia Wildlife*.

Shooting Preserves: The Sport of the Future?

Picture this. You're in a duck blind at daybreak and the mallards are circling. You bring one down. A few minutes later a flock of teal dive-bomb your rig. You score a double. In a few more minutes, more mallards come in. In an hour you have your limit. Now you go for a leisurely country breakfast, followed by a second cup of coffee, then it's off to the skeet range to prepare for an afternoon of upland shooting. After a light lunch, you follow a pair of world class pointers along a row of thick sorghum. The lead dog freezes on point, the other dog backs. You score a nice double. By mid-afternoon a dozen bobwhites add warm, comfortable weight to your gunning vest. But the day is not over. The pointers are still eager, so you finish with a brace of pheasant. And finally, a sumptuous dinner of fried oysters and country ham closes the day.

It's a scenario straight out of 1880s sporting literature, but it is a hunting situation readily available in Virginia today. Sportsmen of the previous century had their clubs and lodges, and hunters today can find similar recreation on licensed hunting preserves, which are becoming increasingly popular in this age of posted land and scarce small game populations.

There are 15 licensed public hunting preserves in the Commonwealth today, plus a handful of private ones operated on a membership or invitation-only basis. In recent years the number of acres in preserves has increased substantially, and in all likelihood it will continue to do so. Indeed, it is a strong possibility that the next generation of hunters in Virginia will to a great extent practice their sport on land that is managed

Frustrated with posted land, private leases, and the scarcity of small game? A shooting preserve may be your answer

story & photos by
Curtis Badger

exclusively for game production.

Game preserves are becoming a fixture in outdoor recreation, mainly because in many areas there is less land to hunt, and there are fewer game birds on that land. "When I was a kid I'd get off the school bus at 4 p.m., get the gun and the bird dog, and I'd find all kinds of birds before dark," says Tom Webb, who with his brother, Monty, opened a preserve on their 1,500-acre Eastern Shore farm two years ago. "The way things are today," said Webb, "you have to have friends who own land or you're out of luck. When I was a kid, everybody knew their neighbors and none of the farmers used potent pesticides like they do today."

Most of us who hunt quail and other upland birds have similar stories to tell. One of my favorite quail coverts during high school days is now

home to a bank and a Kentucky Fried Chicken franchise. Another has had its hedgerows bulldozed, its tenant house lot cleared, and although the land is probably great for growing soybeans, it's a desert for gamebirds. Development, habitat destruction, the proliferation of pesticides, and numerous other factors have taken their toll on bird populations. And the destructive cycle that has reduced hunting in the wild has given birth to a new kind of hunting, one that is a growth industry in outdoor sport.

The knock against game preserves is that they do not provide "real" hunting opportunities. Someone releases a dozen pen-raised quail, you come along 30 minutes later and shoot them. What's sporting about that?

"That's the image we're trying to lose," says Webb. "That might have been true of some preserves in the past, but the ones that want to stay in business have to offer something more. We try to tailor the hunt to the needs and abilities of the hunter. If a hunter is unskilled, we have fairly easy shooting in the open. More experienced hunters might want to shoot a cutover woods or a pine thicket. The hunter can shoot pen-raised birds, but we also have hunts for wild birds. It all depends on the hunter's proficiency and what he wants to do."

The Webbs' preserve, Eastern Shore Safaris, stretches along the banks of the Chesapeake Bay near Silver Beach in Northampton County. Small, shallow creeks thread between fields of soybeans and sorghum, providing a haven for waterfowl. Deer are plentiful in the pine woods, and in the evening you can see them come out to feed on millet, sorghum, buckwheat, and other grain planted for the gamebirds.

The land has been in the Webb family for generations; the frame house that the Webbs converted to a guest lodge was built by their grandfather, who grew vegetables and grain in the nearby fields. Both Tom and Monty learned to hunt here, and several years ago Tom took over the family farming operation. Monty teaches band at Cape Charles School, and during the summer he runs another division of Eastern Shore Safaris, a charterboat operation specializing in offshore fishing.

The decision to open the preserve did not happen overnight; it was more accurately a process of evolution. Tom had been doing some guiding, and he had been experimenting with managing the farm to increase the local quail population. "We decided to open the preserve as a supplement to farming," said Tom. "Farming has been a very frustrating business in the past two or three years, so we began looking for something else. The preserve gives me the opportunity to keep the dogs trained, and it gives me the time to learn more about birds and bird dogs."

A typical day at Eastern Shore Safaris begins with a discussion of hunter safety. "We can usually tell when the client gets out of the car if he or she is an experienced hunter, just by the way they handle the shotgun," says Webb. "We'll also shoot a round of skeet. It gives the hunter a chance to loosen up, and it tells us how proficient the hunter is and how safely he handles the firearm. Then we can tailor the hunt to the individual's needs and abilities. Safety is always the priority. We allow no alcoholic drinks, everyone wears hunter orange, and only two loaded guns are allowed per party."

The Webbs offer a combination of



Shooting preserves not only provide opportunities for hunters and their dogs, but also provide good habitat for wild quail and other small game to prosper.



In these days where good small game habitat is at a premium, shooting preserves are an alternative for the small game hunter who dreams of the "good old days" of bird hunting.

wild game hunting and preserve hunting. The most popular package is the waterfowl and upland combo, which includes a morning in the duck blind and an afternoon of shooting quail and pheasant. Hunting is also available for white-tailed deer, dove, geese, and chukkars. Prices begin at \$20 for an afternoon of dove shooting. The waterfowl-upland combo is \$350 for three hunters. Preserve hunting prices depend upon the number of birds released. Depending upon quantity, quail cost \$6 to \$8 each, pheasant \$13 to \$15, and chukkar \$10 to \$12.

One of the more attractive aspects of preserve hunting is the extended season. Virginia's preserve season begins on October 1 and ends March 31, and the only bag limits are those imposed by your bank account. For any of the released species—quail, pheasant, mallard ducks—you pay for the number of birds set out. The hunting of wild game on the preserve is governed by standard state laws on seasons and limits. A boon for out-of-state hunters is that the \$30 non-resident license is not needed for a preserve hunt. A \$7.50 preserve license is all you need to be legal.

Ironically, the proliferation of hunting preserves bodes well for wild bird hunting. Indeed, the development of preserves may be one of the keys to a regenerated population of wild quail and other gamebirds. For example, the Webbs have been experimenting with habitat and food plots for some years. What they have found comes as no surprise. Quail need food, cover, and water to thrive; without these essentials the chances of maintaining a hunt-able population are slim.

The Webbs have also found that pesticides apparently play a major role in the decline of quail populations and they have found that quail can bounce back quickly when the habitat is adapted to their needs. "On the farms where we use no pesticides, the quail are more numerous on a ten-to-one ratio," says Tom Webb. "Over the years, farmers have increased the potency and concentration of pesticides, much to the detriment of the quail. When the hens are laying and the chicks are developing, quail need a lot

Virginia's Licensed Public Shooting Preserves



Virginia has 15 licensed shooting preserves. Most specialize in small game or waterfowl hunting. Contact each preserve for fee schedules and reservations.

Magnolia Shooting Preserve
M. Dewey Howell, Jr.
101 Philhower Dr.
Suffolk, VA 23434
(804) 539-6296

King Kennels Shooting Preserve
Juanita R. Christensen
P.O. Box 563
Rixeyville, VA 22737
(703) 937-4310

Plain Dealing Shooting Preserve
Ronald O. Edwards
Rt. 2, Box 72
Center Cross, VA 22437
(804) 443-4592

Hermit Valley Preserve & Kennel
Russell O. Peoples
Rt. 2, Box 326-D
New Castle, VA 24127
(703) 864-6179

Indiantown Shooting Preserve
Lon S. Marks
Rt. 1, Box 156
Capron, VA 23829
(804) 658-4150

D.T. Glascock Shooting Preserve
D. T. Glascock
Box 160
Fairfax, VA 22030
(703) 273-1515

Hoot Owl Hollow Farm
Kenney F. Barnard
Route 1, Box 139
Amelia, VA 23002
(804) 561-2670

Greenway Quail Preserve
Stephen R. Oliver
Route 2, Box 427
Orange, VA 22960
(703) 854-5191

Hardly Able Shooting Preserve
David T. Griles
Route 1, Box 111C
Amelia, VA 23002
(804) 561-3647

Oakland Farm Shooting Preserve
David Pomfret
P.O. Box 1265
Orange, VA 22960
(703) 854-4540

Eastern Shore Safaris
G. T. Webb
Route 183
Jamesville, VA 23398
(804) 442-7684

Merrimac Farm Hunting Preserve
Dean M. McDowell
14710 Deepwood Lane
Nokesville, VA 22123
(703) 594-2276

Fred Black Farms Inc.
Fred Black
P.O. Box 5
Broadway, VA 22815
(703) 896-4631

Ed Allen's Hunting Preserve
Ed Allen
Rt. 2, Box 66-A
Providence Forge, VA 23140
(804) 966-2582

Lorraine Farm Shooting Preserve
Harry E. Lowry
Rt. 3, Box 282
Farmville, VA 23901
(804) 223-8233, 223-8222

of insects for protein. This is usually the period when most of the spraying is going on."

The Webbs' fields typically have a border sown in seed-producing plants favored by quail, surrounding a central crop of soybeans. The beans are broadcast with a seed drill instead of row-planted, and they are not treated with herbicides. Although a few weeds compete with the young beans, by the time the crop is about a foot tall, it has formed a thick canopy, shielding from light many of the competing weeds.

The Webbs have more than 1,500 acres, consisting of bayshore, woodlands, soybean fields, and feeder strips. The central 700 acres are used for preserve hunting.

Says Webb: "On the field margins we plant a cover strip of Sudex (a tall, thick, hybrid sorghum), then a feeder strip of millet, soybeans, sunflowers, lespedeza, and buckwheat, and next to that a border of dwarf sorghum. Then we follow with another sequence of the same plants. So the birds have a strip of cover, then feed, then border, followed by cover, feed, border. We also have watering, dusting, and gravel sources in the fields."

The Webbs' farming practices have shown that quail populations can rebound, and do so quickly. "We have about 1,500 acres with the preserve right in the middle," says Webb. "With all the feed strips we put in, it didn't take long for the bird population to increase, even beyond the actual preserve. The surrounding farms used to have three or four coveys each, now they have 10 to 15."

Webb believes that all farmers should be encouraged to use similar practices. "Not everyone is going to start a preserve and plant 100-foot wide feeder strips," says Webb. "But the important thing is that you can improve quail habitat greatly on a much smaller scale. You can sow a single border strip the width of a seed drill along a ditch or next to a woods, and you'd be taking practically no land out of production. And most farms have little corners and jibs you can't harvest with a combine anyway. You can plant feed strips there. It doesn't take much to make a big difference to

the quail."

Being avid bird hunters, the Webbs had been planting food strips and maintaining quail habitat for a number of years; it was not until they opened the preserve in 1986 that they broadened the scope of their operation. "We got advice from other preserve owners, we read books, we talked with state biologists and game wardens," says Webb. "The local game wardens, Johnny Crumb and Mike Caison, were a great help in getting us started. They just bent over backwards to do everything they could."

Virginia has a fairly strict application and licensing procedure for preserve operations, and accurate records must be kept. Preserves must be at least 100 acres, but no more than 750. Operators must release a minimum of three quail and one pheasant per acre per year, plus 300 mallard ducks on preserves featuring waterfowl hunting. Records must be kept on the number of birds released, the number of hunters, and the quantity of birds bagged. Birds harvested by hunters must be tagged with the preserve's license number before they can be removed from the premises.

The Webbs said they made a profit during their first year, although their costs were higher than anticipated. "From August through December of last year I spent nearly \$1,000 on dog food," says Tom Webb. "We have about 20 broke dogs here during the season, plus another 10 to 15 started dogs and puppies. They tend to get hungry when you run them every day."

Feed for the penned quail and pheasants also is a major cost, not to mention the cost of buying the birds in the first place. "When we got started last year I bought 500 quail and 100 pheasant, and when the game farm delivered them I was thinking I'd never get rid of that many birds. But in two weeks the birds were gone and I had to order more."

Webb said the preserve used about 4,500 quail last year, 2,500 pheasants, and "experimented with 300 or 400 chukkars late in the season." More than 400 hunting parties visited during the preserve's first year.

In addition to the hunting parties, the preserve also became home for a number of bird dog field trials. And many local bird hunters found the preserve ideal for dog training. "We had a lot of people who would call and say 'put out ten birds for me and I'll be down in an hour.' You can have the best bird dog in the world, but unless you put the dog on birds, it won't reach its potential. One thing about preserves is that there are always plenty of birds around."

The Webbs also played host to many father and son hunts, and they ran specials around Thanksgiving and Christmas to encourage family visits. "There just aren't that many places these days to teach a kid about hunting. There's nothing a beginning hunter (or a veteran) likes more than going out with a trained bird dog, and there's nothing more frustrating than going out with an untrained one. Most family dogs sit in a kennel all year and the owner expects them to perform when the season opens in November. Here the dogs are trained all year. They're on birds nearly every day. So, beginning hunters know they'll be with a good dog, and they know they'll get some shooting."

There is a subtle notion that preserve hunting takes the wildness from the hunt and turns it into a business transaction. To an extent, that may be true. But a flushing quail is a challenging target, and it could not care less whether it grew up in a game farm's quail condo or on Uncle Oscar's back forty.

The irony is that the diminishing opportunity for wild game hunting on private land has given rise to preserves, and preserves are improving the lot of wild birds by creating better habitat, reducing pesticides, and by demonstrating that quail will respond quickly to small, favorable changes. Certainly it will be costly to create habitat necessary for an abundant quail population, but it is an investment that carries benefits that go beyond the profit and loss statement. □

Curtis Badger is director of publications for the Wildlife Art Museum of the Ward Foundation in Maryland and is a frequent contributor to Virginia Wildlife.

Chester F. Phelps Wildlife Management Area

Location: Honoring one of Virginia's pioneers in professional wildlife management, the Chester F. Phelps Wildlife Management Area near Fredericksburg lies along the historic Rappahannock River in Fauquier and Culpeper counties. It may be reached via State Route 651 either from that road's intersection with U.S. 17 northwest of Falmouth, or by taking Route 651 south from U.S. 29 at Remington.

Description: Topography is typical rolling Piedmont, well supplied with streams, low hills and gentle slopes, some level bottom land along the river, and a four-acre lake. Original forest cover was predominantly hardwood (oak-hickory) with some red cedar and pine. Now the woodland is cut-over hardwood-pine, with scattered cedars along woodland edges and field borders. Most of the land was once in agricultural use. Through carefully planned timber harvest and prescribed burning, the woodland today is managed primarily to maintain browse, mast, escape cover and other habitat needs of woodland wildlife species, including deer, turkey and squirrel. Modified agricultural techniques applied to unforested portions encourage a wide variety of food and cover plants, both native and cultivated, that make attractive and productive home ranges for quail, rabbit, dove and other open land species. Vegetation along pipeline and electricity transmission rights-of-way is managed and controlled to maintain a mixture of low-growing perennials and annuals, resulting in miles of forest edge and diverse habitat types for all wildlife species native to the area.

Hunting: The area supports a good deer population and a fair number of turkeys. Hunting pressure is heavy on these species. There are some ruffed grouse in the woodlands, and squirrels usually are plentiful. Open land and edges yield fair numbers of quail and rabbit. Doves nest on the area and frequently use open fields, food plantings and available watering points.

Regulations: Generally, hunting and fishing regulations are the same as those in effect in Fauquier and Culpeper counties for those portions of the Phelps Area that lie in those two counties. Check the latest hunting and fishing regulations for exceptions.

Fishing: There is a four-acre fishing lake on the area but the great attraction for anglers is the river. The reach of the Rappahannock bordering the Phelps Area is within the 64-mile river segment incorporated in the Virginia Scenic River System. It is especially noted by anglers for yielding excellent catches of smallmouth bass, and redbreast and other sunfish.

Facilities: Ample vehicle parking is available at nine large, clearly marked parking lots along State Routes 651 and 632, from which there is easy access by foot to points throughout the area. There is a boat launching site on Marsh Run near its confluence with the Rappahannock River half a mile below Kellys Ford, and another boat landing and parking facility at Kellys Ford.

Points of Interest: Gold once was mined nearby, as the name of the community of Goldvein attests. Historic Falmouth and Fredericksburg, with their Civil War battlefields and those of Chancellorsville and the Wilderness Campaigns, are only a few miles away, down U.S. 17 and U.S. 1. □

Muzzle loading: rebirth of an American hunting tradition

by Bruce Ingram

It's a classic image. The buckskin-clad outdoorsman is kneeling over his downed game, his facial features chisled and inscrutable. His trusty muzzle loader is draped over his knee, once again having done the job.

More and more, however, that classic image is changing to a contemporary one. Virginians are discovering—or rediscovering—the challenge and the art of black powder hunting. Barry Meador, an employee of C&P Telephone Company in Roanoke, explains his fascination with it.

"In muzzle loading, your goal is to have one deadly shot," he says. "With the amount of time it takes to reload, that's about all you're ever going to get anyway. So everything you do—the scouting, the placement of your stand, the moment you pick to pull the trigger—is geared toward taking that one shot which must result in a clean, quick kill. When you are about to shoot, you don't think 'maybe I can get him.'

"Another attraction for me is that you feel more attuned to the game when you hunt with a primitive weapon. The muzzle loading season is held after the regular gun season is over so the woods are less crowded and the game—in my case, deer—have more or less returned to their normal habits."

Meador, who lives in Roanoke County, says he picks out his stands as if he were hunting with a bow. That is, he concentrates on areas that present close shots of 40 yards or less. Many

black powder enthusiasts will tell you that they feel very comfortable at shooting longer distances, but that they prefer the shorter ones.

Thus, stands are often chosen in places such as laurel thickets, trails leading off the brushy side of mountains, and areas where the terrain creates a "funneling effect." All of these locales tend to channel the deer toward the sportsmen for a close shot.

The black powder sportsman who hunts deer must also have a keen knowledge of this game animal's habits.

"The major part of the rut is over by the time the muzzle loading season comes in," says Meador. "But there will always be some unbred does that come back into heat during December. So if you can find some active scrapes, you have a chance at getting a nice buck. Many people don't realize that there are still some huge bucks out there in December and early January during the black powder season. Last year on the final day of the season, I saw one that had at least 10 points.

"It's also good to be aware of what deer will be feeding on at this time. If the hard mast crop is all gone, for example, then you must know what some of the backup food sources for deer are, such as grapes and apples. I guess what all this goes back to is that the average black powder guy hunts this way because it makes him a more knowledgeable outdoorsman. You simply have to learn the habits and tendencies of the game. In the process, I think you also become a better sportsman. You learn to really respect the game much like a bow hunter really respects the game animal he is after. Muzzle loading is one of the most wonderful kinds of hunting there is."

Though deer are the most common game sought by black powder fans, turkeys are becoming more popular. Paul Arnold, a gun maker from Salem, has long cherished his days afield for this upland bird, but he does have one caveat.

"Only people who are expert shots with a muzzle loader should even attempt to hunt turkeys with this type of gun," he says. "If you are not a good shot, you would be doing this animal a real injustice."

"Before you hunt turkeys—or any other game with a muzzle loader for that matter—you should go out with a veteran hunter. In our club, we call this person a big brother; he will walk you through all the steps from how to load your gun to tips on how to hunt specific animals. It's just plain stupid to take a muzzle loader out of a box

Opposite: photo by Bruce Ingram.



and go hunting with it. I can't even begin to tell you of the things you would need to know to be a safe hunter."

Arnold says that a common error made by novices is using a wet "spit" patch in cold weather. A spit patch will often freeze up in the bore and cause a misfire; in this type of situation a waxed patch should be employed. Other typical snafus include failing to sight in a gun, buying an improperly sized patch and ball, and using an incorrect amount of powder.

The Salem hunter believes that learning to hunt with a muzzle loader is like going to school for the first time—even for those individuals who are adept with shotguns and rifles. Not only can an experienced muzzle loader teach you the correct and safe way to hunt, but he or she can also help you learn faster. For example, there are many muzzle loading "tricks of the trade," specific to each game animal.

"When you hunt turkeys with a muzzle loader, it's almost essential to build a blind after you have scattered the birds," says Arnold. "You just need that little extra concealment that a blind gives. Many black powder hunters will only use wingbone calls for turkeys, and with a wingbone, there is the potential for more movement than there is with a mouth call.

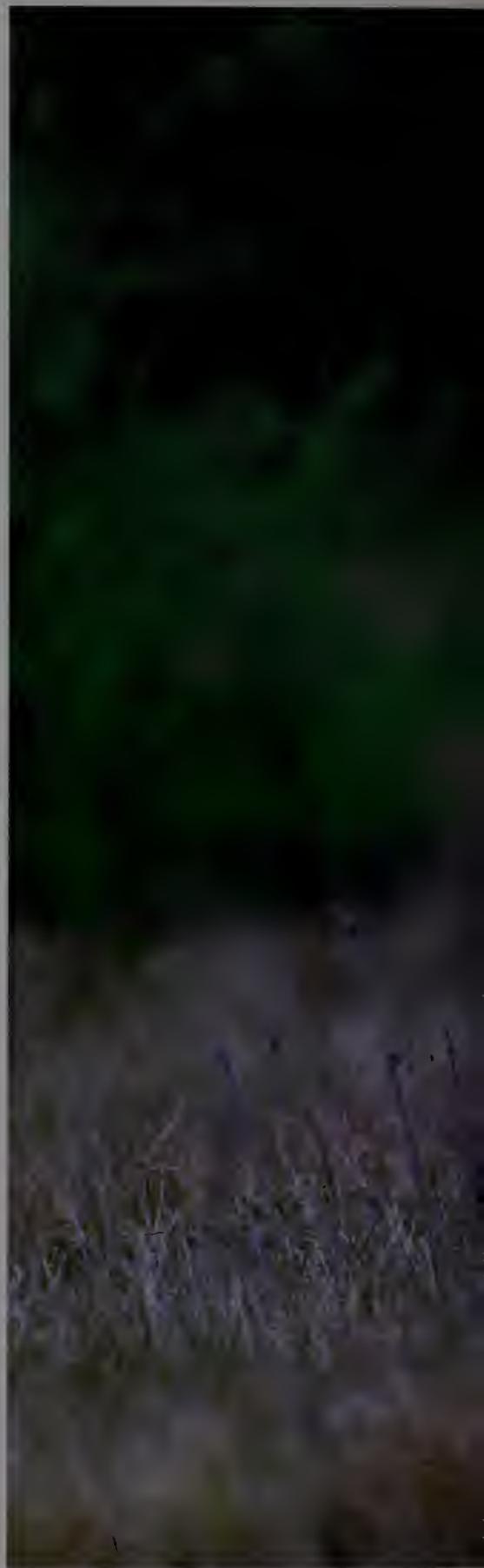
"It's also best to pre-cock your gun before the bird comes too near. If you don't, that turkey will be long gone when he hears that click. A turkey is not curious like a deer is. Those birds aren't going to wait around when they hear a strange sound. I personally don't like to shoot until the turkey's head is pointing away from me. That gives me a little extra time to raise my gun and fire."

Many primitive weapon hunters disdain of using any modern or synthetic equipment and instead adhere to a strict tradition that relies on the original handmade and natural gear.

"I just wouldn't feel right going out in the woods with anything that is modern," says Arnold. "My gun was made sometime between 1760 and 1780. Can you imagine the buffalo it has killed, the pioneer families it has fed, the homesteads that it has de-



Muzzleloaders compare their sport to bowhunting, because of the skill and outdoor knowledge required to be successful. Although deer are the most common game hunted by the muzzleloader, turkeys are becoming popular, but require advanced skill and accuracy with the classic firearm; Wild turkey by Vinyard Brothers; White-tailed deer by Bill Portlock.





fended? Man, if that gun could talk . . . I just wouldn't feel right to use some kind of modern device with that gun. I would feel that I was betraying the memories of my family members who used this gun before me.

"When you hunt with a muzzle loader, it's like hunting in the most elemental way. I am not criticizing anyone who hunts with other kinds of guns; that's fine. But I also feel that we owe the animals something—respect if you will. To kill an animal with a muzzle loader, you have to sweat, and work, and hide, and sneak. If you make one mistake, he's gone. If you shoot and miss, he's gone. But if you kill an animal, you know that you have really earned it and you can truly feel good about what you have accomplished. And that feeling is part of the hunting tradition that our forefathers passed down to us, too."

The market hunters of old employed the muzzle loading shotgun for such game as ducks, geese, and pigeons, and this weapon today remains an effective tool for birds as well as squirrels and rabbits. The muzzle loading shotgun is also becoming a popular way to shatter clay pigeons on the skeet range. The gauges of shotguns typically range from 28 to 7 with the ones from 16 to 10 being the most common.

According to Paul Arnold, the muzzle loader stopped being a "popular" weapon during the 1880s. People in remote areas continued to hunt with it—either by choice or by necessity. Today's black powder sportsman doesn't have to hunt with this weapon. There certainly are a dazzling array of rifles and shotguns on the market. But in an age known for its plastic and prefab goods, the smell of black powder and the feel of a well-crafted muzzle loader are more than a little bit reassuring. Experience the elemental satisfaction of preparing a proper powder charge, lubing and seating the lead or steel ball, tamping the entire mixture down, and priming the gun. And then you may realize why the ancient muzzle loader is a weapon whose time has come again. □

Bruce Ingram is the Virginia editor for *Outdoor Life* magazine and a frequent contributor to *Virginia Wildlife*.

Pistols & Squirrels

It's not at all conventional, but hunting squirrels with a .22 pistol can be a heckuva lot of fun.

by Steve Ausband

Photo by William S. Lea.



I read from time to time that the ordinary gray squirrel is the number one game animal in most states. That should surprise no one. The little animals have a lot going for them. They are ubiquitous, appearing virtually everywhere suitable hardwood trees exist. They are intelligent and resourceful enough to be challenging, but not so challenging as to frustrate a youngster who is just learning how to hunt. They are plentiful, being prolific enough to sustain a generous bag limit year after year throughout a long season. And as if all those things were not enough, the critters are easy to clean and good to eat.

At one time or another I have hunted squirrels successfully with a shotgun, an iron-sighted .22 rifle, a scoped .22, a pellet rifle, a bow and arrow, and a .22 pistol. The only reason I have not tried a muzzle loader like Dixie Gun Works' "New Tennessee Squirrel Rifle" is that I do not own one. I have waited for squirrels, slipped silently along logging roads and listened for squirrels, chased after them with some of the homeliest looking dogs you have ever seen, sat on stumps, leaned against trees, crawled up to the crests of wooded hills so I could peek at the squirrels on the other side, floated down small streams in boats and shot them in trees along the shore, waded up creeks along wooded bottoms, rattled saplings to make squirrels run around in view of a hunting companion, and barked like a squirrel to get them to stop what they were doing and give me a clear shot. I have eaten them fried, stewed, boiled with dumplings, and made into a pot pie. I have never been bitten by a squirrel, but I once watched while Boby MacIntyre got himself bitten on the thumb by a wounded one when we were kids, and I was nearly as impressed as Bobby, but not quite. Squirrels and I go back a long way.

I find myself hunting them more and more these days with a .22 pistol, and while I'm not yet sure that I enjoy this kind of hunting more than I enjoy the other kinds, I like it enough to keep coming back to it. I don't kill as many squirrels this way, but I get more mileage out of each one that I put in

the game bag of my coat.

I began hunting with the pistol years ago when I was teaching my son to hunt with a shotgun. He was an apt pupil, always careful where the barrels of the little double I had bought him were pointed, and positively fanatical about checking a gun to see if it was empty each time he picked it up. Maybe I was a little hard on the 10-year-old at times, demanding or expecting too much, but the result is that now he is as safe to hunt with as anyone I know.

Squirrels were an integral part of his training in gun handling, hunting skills, and outdoor etiquette. I had bought a few acres of rough hillside covered with white oaks and hickories, and the squirrels were cooperative. In fact they were too cooperative at times for an adult with a shotgun, especially if the adult happened to be more interested in training a kid to hunt than he was in bagging a limit of squirrels. I started carrying a Ruger Standard pistol with me on our hunts.

That was years ago, and the little Ruger has been gone a while—traded in on something else, as I recall. It eventually accounted for a lot of squirrels, though I can never remember a time when it got much more than half of a day's limit. In fact, I came to consider two squirrels a good day, and three an extraordinary one. Still, I seemed to enjoy my hunting more, perhaps partly because I saw many more squirrels than I shot at, and when I did wait one out and make a pretty shot, I was immensely satisfied, in much the way I am satisfied by taking a bass on a popping bug rather than on a plastic worm. I learned a lot too, prowling around the woods with that handgun. Most of it was stuff I had known and half forgotten, but all of it was worth remembering, and hunting with the pistol made me more acutely aware of it. Seven or eight things stand out as points a squirrel hunter with a pistol needs to remember.

1. Unless they have been unduly alarmed by motion or sound, and unless they have been hunted heavily, moving squirrels will usually stop and present a clear target. Since they tend

to use the same pathways, both in trees and on the ground, an unfrightened squirrel going away from you will very frequently present an easy target 15-30 minutes later, when he comes back along the same route. A shotgunner will take the squirrel going away; a rifleman might or might not; the pistol hunter will wait for the easier shot. Probably it will come.

2. Squirrels which have been shot at are almost as likely to run toward the shooter as away from him, as long as he remains motionless. Oddly



Not a limit, but an awfully good day with a handgun; photo by Steve Ausband.

enough, they seem to have more trouble detecting the source or direction of the pistol shot than they do the softer report of the rifle. I recently dropped a squirrel out of an oak tree, missed another that ran around on my side of the tree to hide from the noise, then killed it when it left the tree and ran toward me. I would have thought I was dealing with a particularly retarded squirrel, except for the fact that I had seen the same kind of confused behavior before. The moral is, don't move after a shot. You'll very likely get another one.

3. The early season is far better for handgun hunters than the later one. I have heard the arguments about squirrels being hard to see in the thick foliage and shotguns being the only practical choice then. I disagree. I am



Hunting squirrels with a pistol may not be the most efficient way to hunt if you want to bag your limit, but it certainly requires a skill and provides a challenge that can't be matched with a rifle or shotgun; photo by Steve Ausband.

harder to see in September and October too, and I can very often get within 20 or 25 yards of my target without being noticed. A squirrel 20 yards away is a squirrel ready to make the acquaintance of some dumplings. Once the leaves are gone, shots are likely to be more like 40 yards or more—a long way with a handgun. If I do use the pistol in the winter season, I try to do my hunting in the early morning—ordinarily a much more productive time for me than evening. The squirrels seem less suspicious. If I can get to a favorite grove of oaks before the January sun knocks the chill off the morning air, I will probably get a shot. After I move, though, the game is over. Squirrels a hundred yards away see the movement and retire for the day.

4. I have sworn off hollow points. Years ago, I used to want the extra knockdown power I figured the hollow points must have. They have it all right, but the penalty is squirrelburger. Cleaning a small animal that has been hit with a hollow point is sometimes like trying to pick hair out of sausage. I try for head shots, but I'd be a gross liar if I said every squirrel I killed was a head shot. A good body hit with a solid point will roll the animal right off his perch, and it will do so without nearly blowing him in half. I don't like to shoot any game animal and then not use it, and a hollow point wastes meat.

5. There is no such thing as "closer than necessary," and there is no such thing as "more accurate than necessary." The Ruger Mark II target pistol I usually hunt squirrels with now is

phenomenally accurate—when the light is good and the rest is steady and the target is unobscured. In other words, it will sew bullets into a bullseye the size of a quarter with a high degree of predictability when I am on a shooting range and using a bench. But when I am leaning against an oak tree with the setting sun making shadows around a target that starts and stops, appears and disappears, then I want to get as close to the animal as I can get. Twenty-five yards is not bad. Fifteen is much better. And while it's nice to have a gun that will usually hit a quarter at that range, I wish I could own one that would hit the picture of General Washington in the left ear.

6. The all-time, hands-down, most successful approach for me when I am carrying a handgun and need to get

close to a squirrel is one that takes advantage of a field or a road bed next to a good stand of hardwoods, especially if the road or field is slightly higher in elevation than the woods. I can move very quietly along the road or field edge, stopping every few minutes to watch and listen for squirrels. Because the bare ground affords quiet walking, I can approach unheard, and because it is above the level of squirrels feeding on the ground, I am likely to be unseen, as well. Squirrels feeding on the ground are particularly vulnerable, since the noise gives away their position, and their location below the crest of the hill makes their seeing me unlikely. A flicker of movement, a swaying limb, the rustle of leaves, or the sound of claws on tree bark are signals to me to be still. Unless I have done something clumsy, like step on a stick or move too suddenly, I am very likely to get a shot. When the woods are moist and the sound of walking is dampened, the same approach often works well even without the road. Whenever I approach the crest of a hill, I slow down, wait, listen, and watch. If I can hear the squirrel on the other side of the ridge, I can usually put myself in position for a shot.

7. If I could design a perfect squirrel hunting location, it would have plenty of mature white oaks and hickories, easy access to a small stream or branch, and be fairly near a thicket of pines. One hears a lot about hunting deer near "edges," that is, where one type of cover (say, a hardwood grove) merges with another (like pines). I have noticed that squirrel hunting along such edges is often more productive for me than hunting just the hardwoods. This is especially true late in the season, probably because the pines provide a measure of cover for the hunter as well as for the squirrels. Both stand out readily in leafless, December woods. (And speaking of standing out: squirrels are as color blind as deer. I have had them in the deer stand with me on numerous occasions when I was wearing blaze orange. Camo clothing is unnecessary, and a little color might save a life—especially if you are hunting in a popular area.)

8. Squirrels are obliging, but they are not dumb. They will stay in the same grove of oaks and hickories all season, year after year, providing the conservative hunter with a renewable resource. But they will get very suspicious and increasingly hard to find if they are hunted too often. Even squirrels that have never been hunted are naturally suspicious animals. I remember driving down a country road years ago when I was in college, with a friend—a student from a large, snow-belt city—in the passenger seat. We saw a kid about 14 years old walking with a .410 shotgun, and I returned his wave. My companion wondered aloud what the boy might be hunting.

"Squirrels, most likely," I said.

"You mean those things that sit around in the park and eat peanuts? Where's the sport in that?" He was plainly disgusted.

"There's a difference," I said. Then seeing his look of disbelief, I added, "It's a different animal." I still think there was some truth in that.

There are several reasons to try squirrel hunting with a .22 pistol, if you have not already tried it. It presents a very significant challenge, calling on both a certain amount of hunting skill in order to get close to the animal, and at least a fair-to-middlin' shooting eye. No one has to get ready for squirrel season when he hunts with a .22 rifle or a shotgun, but hunting with a pistol offers a fine excuse to get out of the house and burn up a couple of hundred rounds of ammunition. "I need to practice a bit," you can tell yourself; "the season starts next week." Furthermore, a handgun hunter can make his resource last a long time; he certainly is unlikely to do any serious damage to the squirrel population of a hickory grove on any given afternoon, at least not unless he is a lot better at the game than I am.

No special equipment beyond the pistol and a handful of .22 ammunition is needed, and the pistol itself need not be a target model. Most "standard size" .22 revolvers and automatics made by U.S. companies are surprisingly accurate. (By "standard size" I mean those with barrel lengths of around four to six inches

and having enough weight to make for steady holding. Obviously a gun designed to fit in a vest pocket is not going to make for accurate shooting.) Adjustable sights are a big help, though some fixed-sight models are quite adequate right out of the box. I have a friend who uses a pistol scope, and I'll have to admit that the light-gathering qualities of the scope make hitting in dim woods a little easier than it is with even very good iron sights, such as the ones on my Mark II. I just haven't yet gotten used to the look or feel of the scope on a pistol. Or maybe it's the idea. Anyway, the point is that one can spend a great deal or a little on equipment that will be suitable for squirrel hunting. Practice is much more important than price.

State regulations permit handgun hunting in Virginia, but local ordinances may vary. Check first. The one constant rule to keep in mind is that concealed handguns are illegal all over the state—and in most other states too, for that matter. While a holstered .22 target pistol underneath a hunting jacket might not seem like a concealed weapon to you, the law could very easily regard it as exactly that. Unless I am hunting on my own property, I make sure that my holstered gun is visible.

I don't look for the .22 handgun to become the tool of choice for most squirrel hunters. On those occasions when I have decided on a squirrel supper it is not my tool of choice, but about 90 percent of my squirrel hunting these days is mostly an excuse to be in the woods when the leaves are turning and the smell of humus is heavy and rich in the warm autumn air. Oh, it's not just a walk in the woods, of course. I want to hunt then, to be a part of the game of waiting and watching and hoping; the hunting is serious. But the success is in being there, and in working my way in for the right shot, the one good chance, rather than in carrying home a full game bag. And even if the one good chance doesn't come, there's always tomorrow. □

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1986-87 ANNUAL REPORT





CHAIRMAN'S MESSAGE

This past year was a time of great change for the Virginia Department of Game and Inland Fisheries. Not only was our familiar name changed from Commission to Department, but we faced perhaps the most dramatic change of the year with the retirement of Richard Cross as head of the agency. For 45 years, Dick had given his strength and spirit to the Game Department, and for six years had manned the helm as director. However, with Dick's retirement, the Board took a bold step in hiring James A. Remington to fill the position. Remington is a 57-year-old highly successful businessman—a big change for an agency whose directors have always been wildlife biologists with many years of experience with the Department.

But with the Game Department's responsibility today extending far beyond the complexities of fish and game management into the realm of total wildlife management and environmental review, the Board felt that the future demanded a man such as James Remington for this agency. We felt that it was time, not only for the agency to manage the wildlife resources of the state, but to manage its financial and people resources as well, in order to effectively handle our burgeoning responsibilities.

The changes happening this year jolted us into a future that has already begun to reshape the face of this agency. This year, the Board authorized the creation of a new Environmental Section within the agency, designed to deal with the growing number of environmental assessments we are asked to make regarding the impact that private development or any other alteration of the environment might have on our wildlife species. It also took an unprecedented action when it approved our Virginia Endangered Species List, to safeguard our own wildlife in addition to the species found on the federally endangered list. In addition, in cooperation with Trout Unlimited and the U.S. Forest Service, we contracted University of Virginia scientists to assess the effects of acid rain on our 375 trout streams in a two-year study. More and more we are having to make good our promise to protect the wildlife interests of this state.

Photo credits

Page 23: Hunter by Steve Maslowski.

Wren by Vinyard Brothers.

Bass by Doug Stamm.

Fisherman by Jack Randolph.

Quail by Deane Winegar.

Columbine by Cindie Brunner.

Page 25 & 27: Photos by Roy Edwards.

Page 31: White-tailed deer by William S. Lea.

Page 33: Sailboat by Lisa Cumming.

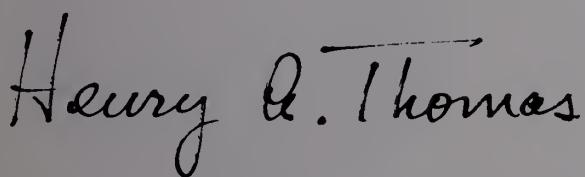
Page 35: Pectoral sandpiper by Vinyard Brothers.

This year also marked the 50th year of our cooperative wildlife management program with the U.S. Forest Service. Signed in 1938, this agreement was the first of its kind in the nation, and has served as a model for other states dedicated to managing wildlife on public land cooperatively, for a common goal.

In addition, the Board approved the agency's newly-developed strategic plan, which is an effort to plan and organize and redefine our responsibilities and the actions we will take to carry them out.

Not only were we in the process of rearranging and rebuilding ourselves in readiness for carrying out our new responsibilities, but we also had a record harvest of deer and turkey this year, and continued our work on reintroducing grouse into Eastern Virginia, and stepping up our research on endangered species.

We are facing a time in which the Game Department must be extraordinarily sharp and in readiness for the future. With the loss of rural land and the explosive growth in Virginia's population, we must be alert in order to carry out our responsibilities as stewards of the wildlife resource. It is a time for us to shoulder our new responsibilities with pride and courage. What with new leadership and the challenges of the new responsibilities facing us, we also hope that the 1988 legislative session will realize the importance of our duties and our mandate to protect and conserve wildlife diversity in this state, and allow us to institute a hunting and fishing license fee increase—the first in seven years—that will help us meet these future challenges with strength, responsibility and timeliness. Here's to another year of getting things done!



John W. Daniel, II
Secretary of Natural Resources



Henry A. Thomas, Chairman



DIRECTOR'S MESSAGE

Since the days of Harry Byrd and Herbert Hoover, the Game Department has been taking care of wildlife in the Old Dominion. And, from the very beginning, since 1916, the sportsmen of Virginia have been making it possible.

The Game Department receives no state tax dollars. Its revenue consists of hunting and fishing license fees, boat registration and titling fees, and voluntary contributions to our Nongame and Endangered Species Fund. A visionary bill passed 50 years ago in the United States Congress also allows Virginia to be the recipient of matching funds derived from a federal excise tax on sporting guns and ammunition, and from a similar tax on fishing tackle, and on motorboat fuels. This matching federal fund allows our own state funds to go further, three-quarters of the way further for many of the dollars that we spend.

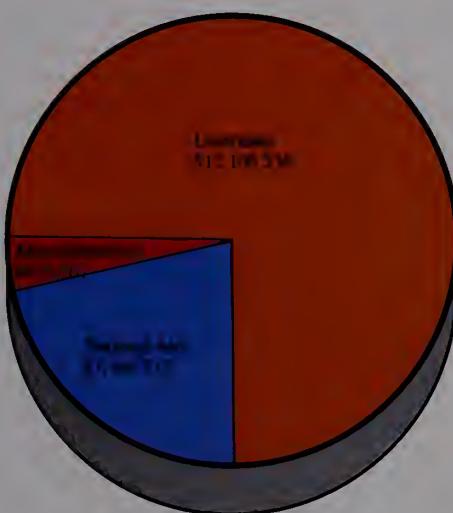
As you can see opposite, our largest fund, the Game Protection Fund, is composed of hunting and fishing license revenue, and is used in concert with the federal matching funds for wildlife management and research, land acquisition, fish hatcheries, law enforcement, education, and the building and maintenance of facilities, such as boat ramps and launchings. With this fund, we have increased the numbers of white-tailed deer in the state from near extinction to the point of delightful abundance—this year resulted in the largest harvest of deer on record, at an incredible 121,801! We've also managed turkeys from depressing scarcity to a record spring harvest this year of 5,835. And the news just keeps getting better. We're actively trying to reintroduce grouse into the eastern portion of the state, and our black bear populations are on the increase. On the fisheries side, we've instituted a new and exciting "slot limit" program, on the Shenandoah, the New, and the James rivers, that is designed to protect the growing fish with the best chances of survival in order to give fishermen better, bigger, and more fish each year. We have also started an intensive three-year study of the James River, to help us better understand, manage, and protect this river that is giving up record numbers of smallmouth bass citations each year. And this has been a record-breaking year for trophy



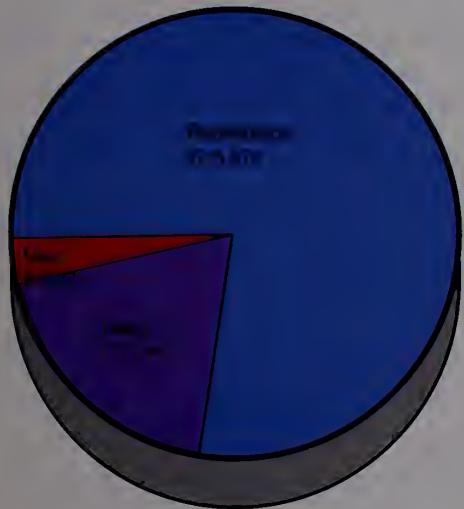
James A. Remington, Director

Game Protection Fund

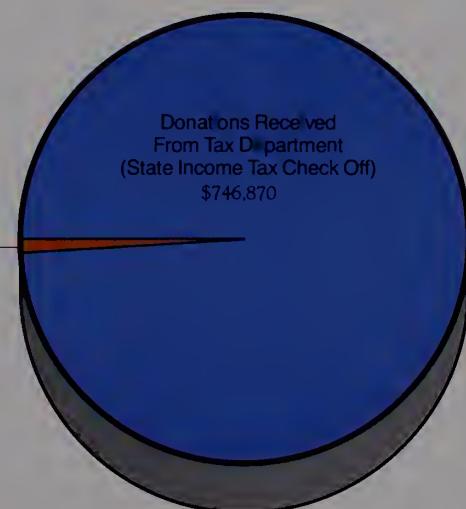
Receipts
\$16,254,121



Boat Fund
Receipts
\$906,597



Nongame Fund
Receipts
\$752,839





fish—with new state records set for 18 species of fish!

Our second largest fund, the motorboat fund, consists of boat titling and registration fees and matching money from a federal excise tax on motorboat fuels. Specifically designated for boating education and safety, law enforcement and the building of boating facilities, this year the fund provided support for much needed boating education and access ramps at a time when Virginians are not only concerned about finding a place to fish and pleasure boat, but also with putting a stop to reckless boat handling in increasingly crowded conditions on our lakes and rivers.

The Nongame fund, created only five years ago, derives most of its revenue from tax refunds voluntarily channeled into this program through a check off on state income tax returns. Our smallest fund at little more than three-quarters of a million dollars this year, we have still made significant inroads towards protecting and managing our endangered and threatened wildlife in the state, along with learning more about our indigenous, non-hunted species. For example, a study we funded documenting the distribution and life history of fishes in Virginia will come to fruition in a first of its kind reference book sometime next year, and the field work has been completed on a never before conducted study documenting the natural history, ecology and distribution of reptiles and amphibians in the state.

Our work to preserve our wildlife heritage in Virginia is just beginning. But, in our 71 years of existence, we have made great strides in the field of wildlife management, and as you can see, nearly all that we have has materialized because of the support of the sportsman. The 33 wildlife management areas; the skilled management of deer, turkey, and other wildlife populations that have become our great success stories; the 29 public fishing lakes; the 10 fish hatcheries supplying game fish to waters all across the state—these are all the direct result of the support of the Virginia sportsman.

But, times are changing, Virginia's population is projected to reach 6,096,700 by 1990. Not only does this

represent a 14% increase in just 10 years, but the growth rate is considerably above the 1.0 percent average annual growth rate projected for the nation as a whole. And explosive growth means an explosion of asphalt—of housing development and business centers; shopping centers and gas stations—and a loss of wildlife habitat. This means we lose hunting land, gain more hunters on the remaining open land, more fishermen on already crowded lakes and rivers, and more risk for hunting and fishing and boating accidents.

A rather dismal picture for the future, you might say. But, we are developing some new initiatives and will expand some existing programs in an effort to face these changes head on with strength and effectiveness. We plan to:

- open more land and water to public use by working with private landowners across the state.
- crack down more effectively on wildlife law violators by hiring more law enforcement officers.
- improve the effectiveness in coping with wildlife diseases and harmful pesticides.
- improve existing facilities, like boat ramps, fishing piers, and fish hatcheries.
- increase the number of fishing piers for handicapped access.
- improve small game habitat, populations, and the opportunities for hunting them.
- acquire and improve habitat for wintering waterfowl.
- expand technical assistance to land and pond owners.
- expand programs to improve the quality of deer herds.
- improve the capability of evaluating the environmental effects of land and water projects upon fish and wildlife habitat.
- broaden the protection of critical wildlife species and critical wildlife areas.
- generally improve the responsiveness of agency services to the needs of the clientele by increasing staffing where needed.

In addition, we intend to tackle several new initiatives, including:

- an aggressive program to involve youth in healthy outdoor pursuits, including a statewide program to teach fishing and appreciation of our aquatic resources, and an urban fishing program designed to attract inner-city youth.
- a program to provide shooting ranges statewide for the sighting in of firearms and hunter safety instruction.
- programs to produce harder fighting, faster growing, genetically improved fish.

Unfortunately, we also need to take some major steps on the financial end if we're going to be able to carry out these plans. Since 1967, though the cost of living in the U.S. has risen 237%, our hunting and fishing license fees have only risen 114%! In fact, if you bought a hunting and fishing license for every year the last 20 years, it cost you only \$103.50.

But, that recreational bargain is catching up with us now. We will need a license fee increase if we are going to continue to give the sportsmen what they want. We need it to make ends meet, and we need it to carry us into the challenges of the future.

We know you will support these new goals and programs now as you have always done in the past. In the 71 years of its existence, the Department of Game and Inland Fisheries has tried to spend your dollars wisely and effectively. We hope you will agree that the effort has been quite productive. We plan to keep right on increasing the productivity with your renewed support.





Receipts
\$16,254,121

GAME PROTECTION FUND

Highlights

Wildlife Conservation: Record harvests of white-tailed deer and black bear marked the 86-87 hunting season, and the fall turkey harvest was second best ever recorded. Game Division personnel collected biological information on 7,650 deer. Nearly 13,000 acres of wildlife food and cover plantings were developed, timber management for wildlife was practiced on 618 acres, and 18 waterholes were constructed. Wildlife restoration included the capture and relocation of wild turkeys and Canada geese, and re-introduction of the ruffed grouse.

Fish Conservation: Investigations were conducted on Back Bay, which led to the Board's decision to cease saltwater pumping; a two-year study was funded to assess the effects of acid rain on Virginia's trout streams; and an effort to restore striped bass in the Chesapeake Bay was coordinated with the Virginia Institute of Marine Science. In addition, 17,423,375 warmwater fish and 2,043,076 coldwater fish were hatched and released.

Land Acquisition and Structures: One hundred seventy-five acres were acquired, costing \$89,400. Total Department holdings: 179,532 acres.

A new handicapped anglers access on Lake Anna and a boat landing on a public fishing lake in Westmoreland-/Northumberland counties were opened. Five dams were repaired or renovated, and 172 boat landings were operated and maintained.

Law Enforcement: Over 3,673,575 miles of land were patrolled. In addition, 16,072 students completed our Virginia Hunter Safety program and over 250 new volunteer Virginia Hunter Safety Instructors were trained.

Education: *Virginia Wildlife* magazine ranked among the top five state wildlife magazines in the country, and climbed to a new high of 55,000 subscribers. The 27th show in the *Virginia Wildlife* weekly television series was completed. We reached hundreds of youngsters and adults at the Richmond Area Hunting and Fishing Day celebration in September, in what has become the model exhibition of its kind for the entire country.





Receipts
\$906,597

BOAT FUND

Highlights

Boat Landing Construction and Maintenance: New boat landings at Snowden on the James River in Amherst County and Clinchport on the Clinch River in Scott County were completed, while others in Portsmouth, Page, and Southampton Counties neared completion. Extra launching lanes and courtesy piers were added at Gloucester Point Landing, Owls Creek Landing in Virginia Beach, and Fredericksburg Landing.

Law Enforcement: Support for 100,386 miles of water patrol was provided, in addition to law enforcement support for boating education. An aggressive offensive was instituted to detect boat operators under the influence of drugs and alcohol.

Education: Over 23,500 students completed a boating safety education course with the support of Game Department personnel, representing about 15% of all registered Virginia boat owners; two television and 1,500 radio programs concerning boating safety were broadcast throughout the state; public lectures on boating safety were given to 1,269 people, and thousands of posters, booklets, and pamphlets on boating safety were distributed to the public.





Receipts
\$752,839

NONGAME FUND

Highlights

Wildlife Research: Virginia's bald eagles experienced the highest nesting success rate recorded in 10 years, with 73 active nests and a total of 107 fledged birds. The northern flying squirrel study initiated to determine the distribution and status of this federal and state endangered species has resulted in 292 nest boxes being installed at 22 study sites. Seven northern flying squirrels have been captured so far, along with 352 southern flying squirrels. The effort to reintroduce the peregrine falcon to the western part of the state continued with four additional falcons being released successfully at the Mount Rogers National Recreation Area. In other locations, four out of five breeding pairs of wild falcons were successful in producing 14 young.

Aquatic Research: Endangered marine turtle research was funded, contributing to our knowledge of the ecology and conservation of these animals. Field work was completed on the statewide amphibian and reptile inventory and life history study, which will not only provide the most comprehensive information ever available on these species, but will also be our most important tool for managing and protecting this component of our natural heritage. In addition, the orangefin madtom and Roanoke logperch study to determine the distribution of these fish which have been proposed for the federal threatened list has revealed a more widespread distribution than originally believed.

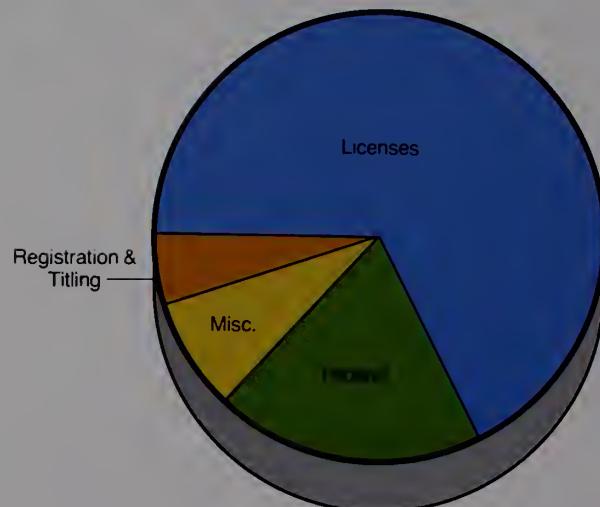
Education: The ecological messages of Project WILD reached the 2,000th teacher last year, and some 120,000 Virginia school children have learned about wildlife conservation and ecology through the program's application in math, music, history, physical education, science, and social studies classes. This program has been incorporated into teacher training programs at both the university and in-service levels.

A wildlife stream habitat demonstration area was funded at the 34-acre Happy Hallows Gardens Park and Natural Area near Roanoke. Similar projects were approved for funding in Arlington and Fairfax counties. "Virginia's Beach-nesting Birds" was produced, an important booklet alerting the public to their role in protecting these species.

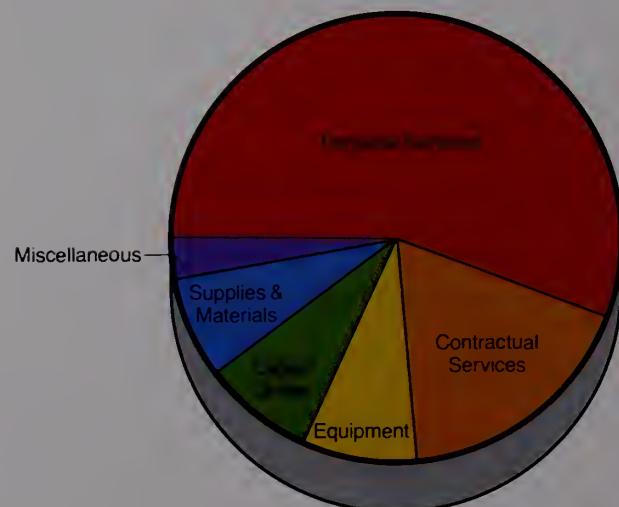


Statement of Consolidated Fund Receipts, Expenditures, and Fund Balances

Receipts



Expenditures



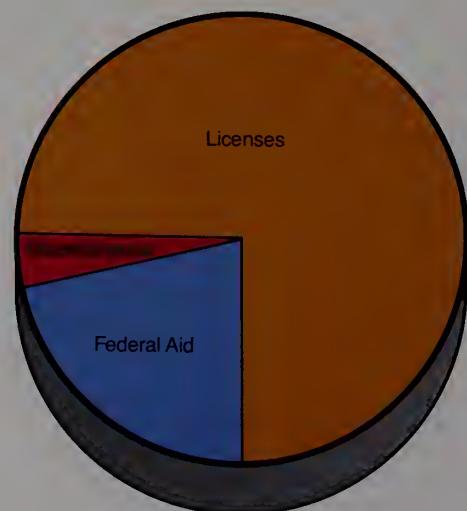
July 1, 1986 - June 30, 1987

Fund Balance, July 1, 1986		7,472,087.91
Receipts		
Licenses	12,108,538.43	
Registration & Titling	876,325.00	
Federal Aid	3,486,715.92	16,471,579.35
Miscellaneous:		
Nongame Donations	752,839.93	
State Publication Sales	226,966.00	
Sale of Surplus Property	252,007.60	
Other	210,166.88	1,441,980.41
		17,913,559.76
Expenditures		
Maintenance and Operation		
Personal Services	9,967,777.99	
Contractual Services	3,203,254.91	
Supplies and Materials	1,277,643.65	
Equipment	1,515,540.49	
Miscellaneous	537,705.51	16,501,922.55
Capital Outlay		1,458,299.22
		(17,960,221.77)
Cash Transfers:		
Game Protection Fund	86,417.25	
Boat Fund	107,000.00	(193,417.25)
Miscellaneous Reconciliation Adjustments		(65,631.59)
Fund Balance, June 30, 1987		7,166,377.06

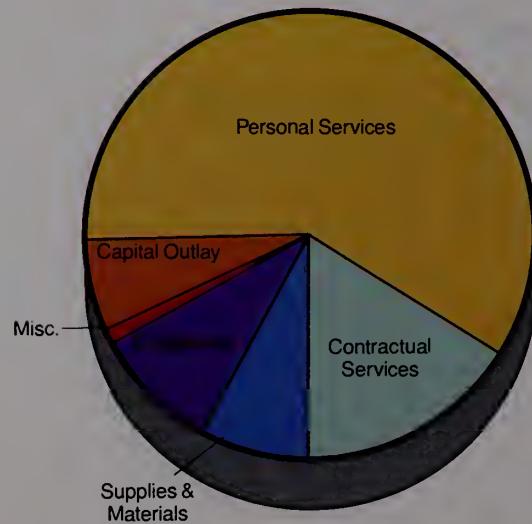


Statement of Game Protection Fund Receipts, Expenditures, and Fund Balances

Receipts



Expenditures

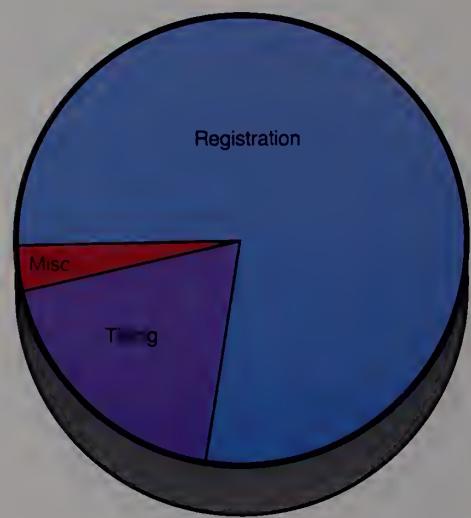


July 1, 1986 - June 30, 1987

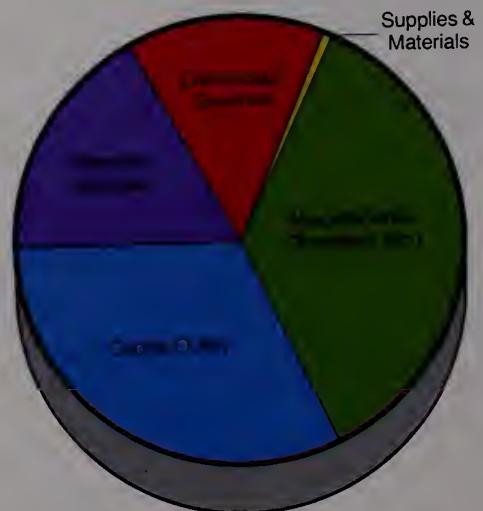
Fund Balance, July 1, 1986		5,749,770.17
Receipts		
Licenses:		
Hunting Licenses	7,037,923.37	
Fishing Licenses	4,975,235.00	
National Forest Stamp	361,762.50	
Miscellaneous Licenses	197,508.76	
Refunds to Agents ¹	(463,891.20)	12,108,538.43
Federal Aid:		
Pittman-Robertson	2,061,202.05	
Dingell-Johnson	647,773.48	
Endangered Species	252,515.12	
Biagi Bill	417,509.76	
Miscellaneous	107,715.51	3,486,715.92
Miscellaneous:		
State Publication Sales	226,861.86	
Miscellaneous Sales	121,877.96	
Rentals	2,004.93	
Sale of Surplus Property	252,007.60	
Vehicle Parking Facilities	1,688.00	
Other	54,427.17	658,867.52 16,254,121.87
Expenditures		
Maintenance and Operation		
Personal Services	9,709,762.75	
Contractual Services	2,672,124.33	
Supplies and Materials	1,270,393.45	
Equipment	1,501,871.77	
Miscellaneous	124,542.25	15,278,694.55
Capital Outlay	1,103,428.81	(16,382,123.36)
Cash Transfers		(86,417.25)
Miscellaneous Reconciliation Adjustments		(120,868.01)
Fund Balance, June 30, 1987		5,414,483.42

Statement of Boat Fund Receipts, Expenditures, and Fund Balances

Receipts



Expenditures



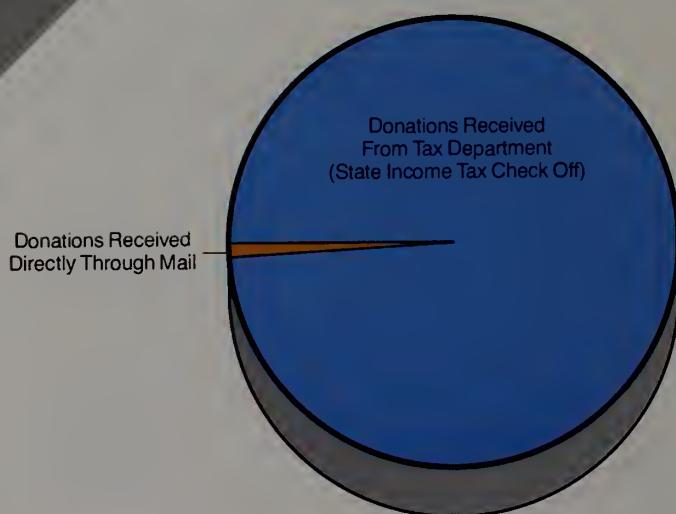
July 1, 1986 - June 30, 1987

Fund Balance, July 1, 1986		1,171,035.94
Receipts		
Registration	705,878.00	
Titling	170,447.00	
Miscellaneous	30,272.96	906,597.96
Expenditures		
Maintenance and Operation		
Personal Services	187,715.02	
Contractual Services	156,284.21	
Supplies and Materials	3,013.35	
Equipment	1,106.95	
Miscellaneous ¹ (transfers, etc.)	407,760.76	755,880.29
Capital Outlay	354,870.41	(1,110,750.70)
Cash Transfers		(107,000.00)
Miscellaneous Reconciliation Adjustments		1,225.29
Fund Balance, June 30, 1987		861,108.49

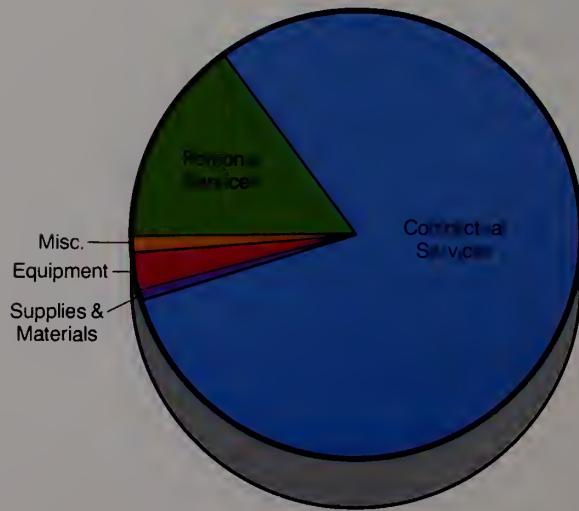
¹Includes transfers to other divisions of \$399,404.25

Statement of Nongame Fund Receipts, Expenditures, and Fund Balances

Receipts



Expenditures



July 1, 1986 - June 30, 1987

Fund Balance, July 1, 1986		551,281.80
Receipts		
Donations:		
Received from Dept. of Taxation (State Income Tax Checkoff)	746,870.48	
Received Directly by Department Through Mail	5,969.45	752,839.93
Expenditures		
Maintenance and Operation		
Personal Services	70,300.22	
Contractual Services	374,846.37	
Supplies and Materials	4,236.85	
Equipment	12,561.77	
Miscellaneous	5,402.50	467,347.71
Capital Outlay	-0-	(467,347.71)
Miscellaneous Reconciliation Adjustments		54,011.13
Fund Balance, June 30, 1987		890,785.15

